

HAWAII STD TREATMENT GUIDELINES FOR ADULTS AND ADOLESCENTS 2007

These STD treatment guidelines reflect the 2006 CDC STD Treatment Guidelines and its 2007 update. The focus is primarily on STDs encountered in office practice and is intended as a source of clinical guidance. These are not a comprehensive list of all effective regimens and should not substitute for use of the full CDC STD treatment guideline document. Reportable STDs include chancroid, chlamydia, gonorrhea, PID, and syphilis. To report STDs, request assistance with confidential notification of sexual partners of patients with reportable STD or to obtain additional information on the medical management of patients with STDs, call the STD Prevention Program at (808) 733-9281 or visit www.hawaii.gov/health/healthy-lifestyles/std-aids/index.html.

DISEASE	RECOMMENDED REGIMENS	DOSE/ROUTE	ALTERNATIVE REGIMENS
CHANCROID	<ul style="list-style-type: none"> • Azithromycin, or • Ceftriaxone, or • Ciprofloxacin¹, or • Erythromycin base 	1 g po 250 mg IM 500 mg po bid x 3 d 500 mg po tid x 7 d	
CHLAMYDIA			
Uncomplicated Infections ² Genital/Rectal/Pharyngeal	<ul style="list-style-type: none"> • Azithromycin, or • Doxycycline¹ 	1 g po 100 mg po bid x 7 d	<ul style="list-style-type: none"> • Erythromycin base 500 mg po qid x 7 d, or • Erythromycin ethylsuccinate 800 mg po qid x 7 d
Pregnant Women ³	<ul style="list-style-type: none"> • Azithromycin, or • Amoxicillin 	1 g po 500 mg po tid x 7 d	<ul style="list-style-type: none"> • Erythromycin base 500 mg po qid x 7 d, or • Erythromycin base 250 mg po qid x 14 d, or • Erythromycin ethylsuccinate 800 mg po qid x 7 d, or • Erythromycin ethylsuccinate 400 mg po qid x 14 d
GONORRHEA Ciprofloxacin and other quinolones should NOT be used to treat gonococcal infections and associated conditions such as pelvic inflammatory disease due to increased prevalence of ciprofloxacin-resistant strain <i>N. gonorrhoeae</i> in Hawaii. Routine use of azithromycin to treat gonococcal infections is not recommended because of the emerging resistance of <i>N. gonorrhoeae</i> to azithromycin. If gonorrhea is documented and sign and symptom persists or recurs, then obtain test-of-cure culture to ensure patient does not have untreated resistant-strain gonorrhea infection. Annual screening of women at increased risk of infection is recommended. Retest patients 3 months after gonorrhea treatment.			
Uncomplicated Infections Genital/Rectal	<ul style="list-style-type: none"> • Ceftriaxone⁴, or • Cefixime^{4,5} <p>Plus co-treatment for chlamydia if not ruled-out by NAAT</p>	125 mg IM 400 mg po	<ul style="list-style-type: none"> • Either Cefpodoxime⁴ 400 mg po, or • Spectinomycin⁶ 2 g IM <p>Plus co-treatment for chlamydia if not ruled-out by NAAT</p> <ul style="list-style-type: none"> • Azithromycin⁷ 2 g po in a single dose
Pharyngeal Infections	<ul style="list-style-type: none"> • Ceftriaxone⁴ <p>Plus co-treatment for chlamydia if not ruled-out by NAAT</p>	125 mg IM	<ul style="list-style-type: none"> • Azithromycin⁷ 2 g po in a single dose
Pregnant Women ³	<ul style="list-style-type: none"> • Ceftriaxone⁴, or • Cefixime^{4,5} <p>Plus co-treatment for chlamydia if not ruled-out by NAAT</p>	125 mg IM 400 mg po	<ul style="list-style-type: none"> • Spectinomycin⁶ 2 g IM <p>Plus co-treatment for chlamydia if not ruled-out by NAAT</p> <ul style="list-style-type: none"> • Azithromycin⁷ 2 g po in a single dose
PELVIC INFLAMMATORY DISEASE^{8,9}			
Parenteral ¹⁰	<ul style="list-style-type: none"> • Either Cefotetan or • Cefoxitin <p>Plus Doxycycline¹</p>	2 g IV q 12 hrs 2 g IV q 6 hrs 100 mg po or IV q 12 hrs	Parenteral ¹⁰ <ul style="list-style-type: none"> • Ampicillin/Sulbactam 3 g IV q 6 hrs <p>Plus Doxycycline² 100 mg po or IV q 12 hrs</p>
	<ul style="list-style-type: none"> • Clindamycin <p>Plus Gentamicin</p>	900 mg IV q 8 hrs 2 mg/kg IV or IM followed by 1.5 mg/kg IV or IM q 8 hrs	
Oral /IM	<ul style="list-style-type: none"> • Either Ceftriaxone, or • Cefoxitin with Probencid <p>Plus Doxycycline¹</p>	250 mg IM 2 g IM 1 g po 100 mg po bid x 14 d	<ul style="list-style-type: none"> • Doxycycline¹ 100 mg po bid x 14 d, or • Tetracycline¹ 500 mg po qid x 14 d, or • Ceftriaxone 1g IM or IV qd x 8-10 d
			<ul style="list-style-type: none"> • Doxycycline¹ 100 mg po bid x 28 d, or • Tetracycline¹ 500 mg po qid x 28 d
SYPHILIS Patients allergic to penicillin should be treated with penicillin after desensitization. Benzathine penicillin G (generic name) is the recommended treatment for syphilis not involving the central nervous system. It is available in only one long-acting formulation, Bicillin® L-A (the trade name) which contains only benzathine penicillin G. Other combination products, such as Bicillin® C-R, contain both long-and short-acting penicillins and are not effective for treating syphilis. The efficacy of alternate therapies has not been established. Compliance with some of these regimes is difficult, and close follow-up is essential. If compliance or follow-up cannot be ensured, then patient should be desensitized and treated with benzathine penicillin.			
Uncomplicated			
Primary, Secondary, and Early Latent	<ul style="list-style-type: none"> • Benzathine penicillin G 	2.4 million units IM	<ul style="list-style-type: none"> • Doxycycline¹ 100 mg po bid x 14 d, or • Tetracycline¹ 500 mg po qid x 14 d • Ceftriaxone 1g IM or IV qd x 8-10 d
Late Latent and Latent of Unknown duration	<ul style="list-style-type: none"> • Benzathine penicillin G 	7.2 million units, administered as 3 doses of 2.4 million units IM each, at 1-week intervals	<ul style="list-style-type: none"> • Doxycycline¹ 100 mg po bid x 28 d, or • Tetracycline¹ 500 mg po qid x 28 d
Neurosyphilis ¹¹	<ul style="list-style-type: none"> • Aqueous crystalline penicillin G 	18-24 million units daily, administered as 3-4 million units IV q 4 hrs or continuous infusion x 10-14 d	<ul style="list-style-type: none"> • Procaine penicillin G, 2.4 million units IM qd x 10-14 d <p>Plus</p> <ul style="list-style-type: none"> • Probencid 500 mg po qid x 10-14 d, or • Ceftriaxone 2 g IM/IV qd x 10-14 d
HIV Co-Infected			
Primary, Secondary, and Early Latent	<ul style="list-style-type: none"> • Benzathine penicillin G 	2.4 million units IM	<ul style="list-style-type: none"> • Doxycycline¹ 100 mg po bid x 14 d, or • Tetracycline¹ 500 mg po qid x 14 d
Late Latent, and Latent of Unknown duration with normal CSF Exam	<ul style="list-style-type: none"> • Benzathine penicillin G 	7.2 million units, administered as 3 doses of 2.4 million units IM each, at 1-week intervals	<ul style="list-style-type: none"> • Doxycycline¹ 100 mg po bid x 28 d
Neurosyphilis ¹¹	<ul style="list-style-type: none"> • Aqueous crystalline penicillin G 	18-24 million units daily, administered as 3-4 million units IV q 4 hrs x 10-14 d	<ul style="list-style-type: none"> • Procaine penicillin G, 2.4 million units IM qd x 10-14 d <p>Plus</p> <ul style="list-style-type: none"> • Probencid 500 mg po qid x 10-14 d, or • Ceftriaxone 2 g IM/IV qd x 10-14 d
Pregnant Women			
Primary, Secondary, and Early Latent	<ul style="list-style-type: none"> • Benzathine penicillin G 	2.4 million units IM	None
Late Latent and Latent of Unknown duration	<ul style="list-style-type: none"> • Benzathine penicillin G 	7.2 million units, administered as 3 doses of 2.4 million units IM each, at 1-week intervals	None
Neurosyphilis ¹¹	<ul style="list-style-type: none"> • Aqueous crystalline penicillin G 	18-24 million units daily, administered as 3-4 million units IV q 4 hrs x 10-14 d	<ul style="list-style-type: none"> • Procaine penicillin G, 2.4 million units IM qd x 10-14 d <p>Plus</p> <ul style="list-style-type: none"> • Probencid 500 mg po qid x 10-14 d

DISEASE	RECOMMENDED REGIMENS	DOSE/ROUTE	ALTERNATIVE REGIMENS
BACTERIAL VAGINOSIS (BV)			
Adults/Adolescents	<ul style="list-style-type: none"> • Metronidazole, or • Metronidazole gel, or • Clindamycin cream¹² 	500 mg po bid x 7 d 0.75% one full applicator (5g) intravaginally qd x 5d 2% one full applicator (5g) intravaginally qhs x 7d	<ul style="list-style-type: none"> • Clindamycin 300 mg po bid x 7 d, or • Clindamycin ovules¹² 100 mg intravaginally qhs x 3 d
Pregnant Women	<ul style="list-style-type: none"> • Metronidazole, or • Metronidazole, or • Clindamycin 	500 mg po bid x 7d 250 mg po tid x 7 d 300 mg po bid x 7 d	
EPIDIDYMITIS⁸	Likely due to gonorrhea or Chlamydia <ul style="list-style-type: none"> • Ceftriaxone Plus Doxycycline Likely due to enteric organisms <ul style="list-style-type: none"> • Ofloxacin¹³, or • Levofloxacin¹³ 	250 mg IM 100 mg po bid x 10 d 300 mg po bid x 10 d 500 mg po qd x 10 d	
HERPES SIMPLEX VIRUS Counseling about natural history, asymptomatic shedding, and sexual transmission are essential components of herpes management. If HSV lesions persist or recur while receiving antiviral therapy, HSV resistance should be suspected. A viral isolate should be obtained for sensitivity testing. Consultation with an Infectious Disease physician is recommended.			
First Clinical Episode	<ul style="list-style-type: none"> • Acyclovir, or • Acyclovir, or • Famciclovir, or • Valacyclovir 	400 mg po tid x 7-10 d 200 mg po 5/day x 7-10 d 250 mg po tid x 7-10 d 1 g po bid x 7-10 d	
Established Infection Episodic Therapy for Recurrent Episodes	<ul style="list-style-type: none"> • Acyclovir, or • Acyclovir, or • Acyclovir, or • Famciclovir, or • Famciclovir, or • Valacyclovir, or • Valacyclovir 	400 mg po tid x 5 d 800 mg po bid x 5 d 800 mg po tid x 2 d 125 mg po bid x 5 d 1000 mg po bid x 1d 500 mg po bid x 3 d 1 g po qd x 5 d	
Suppressive Therapy ¹⁴	<ul style="list-style-type: none"> • Acyclovir, or • Famciclovir, or • Valacyclovir, or • Valacyclovir 	400 mg po bid 250 mg po bid 500 mg po qd 1 g po qd	
HIV Co- Infected			
Episodic Therapy for Recurrent Episodes	<ul style="list-style-type: none"> • Acyclovir, or • Famciclovir, or • Valacyclovir 	400 mg po tid x 5-10 d 500 mg po bid x 5-10 d 1 g po bid x 5-10 d	
Suppressive Therapy ¹⁴	<ul style="list-style-type: none"> • Acyclovir, or • Famciclovir, or • Valacyclovir 	400-800 mg po bid or tid 500 mg po bid 500 mg po bid	
HUMAN PAPILLOMAVIRUS			
External Genital / Perianal Warts	Patient Applied <ul style="list-style-type: none"> • Imiquimod¹⁵ 5% cream, or • Podofilox¹⁵ 0.5% solution or gel Provider Administered <ul style="list-style-type: none"> • Cryotherapy, or • Podophyllin¹⁵ resin 10%-25% in tincture of benzoin, or • Trichloroacetic acid (TCA) 80%-90%, or • Bichloroacetic acid (BCA) 80%-90%, or • Surgical removal 	Topically qhs 3 x wk up to 16 wks Topically bid x 3 d followed by 4 d no treatment for up to 4 cycles Apply once q 1-2 weeks Apply once q 1-2 weeks Apply once q 1-2 weeks Apply once q 1-2 weeks	<ul style="list-style-type: none"> • Intralesional interferon, or • Laser surgery
Mucosal Genital Warts ¹⁶	<ul style="list-style-type: none"> • Cryotherapy, or • TCA or BCA 80%-90%, or • Podophyllin¹⁵ resin 10%-25% in tincture of benzoin, or • Surgical removal 	Vaginal, urethral meatus, and anal Vaginal and anal Urethral meatus only Anal warts only	
LYMPHOGRANULOMA VENEREUM	<ul style="list-style-type: none"> • Doxycycline¹ 	100 mg po bid x 21 d	<ul style="list-style-type: none"> • Erythromycin base 500 mg po qid x 21 d, or • Azithromycin 1 g po q week x 3 weeks
CERVICITIS ^{8,9,13}	<ul style="list-style-type: none"> • Azithromycin, or • Doxycycline¹ 	1 g po 100 mg po bid x 7 d	
NONGONOCOCCAL URETHRITIS ^{8,13}	<ul style="list-style-type: none"> • Azithromycin, or • Doxycycline 	1 g po 100 mg po bid x 7 d	<ul style="list-style-type: none"> • Erythromycin base 500 mg po qid x 7 d, or • Erythromycin ethylsuccinate 800 mg po qid x 7 d
TRICHOMONIASIS ¹⁷ Non-pregnant women	<ul style="list-style-type: none"> • Metronidazole, or • Tinidazole¹⁸ 	2 g po 2 g po	<ul style="list-style-type: none"> • Metronidazole 500 mg po bid x 7 d
Pregnant women	<ul style="list-style-type: none"> • Metronidazole 	2 g po	<ul style="list-style-type: none"> • Metronidazole 500 mg po bid x 7 d

1. Contraindicated for pregnant and nursing women.
2. Annual screening for women age 25 years or younger. Recommend Nucleic Acid Amplification Tests (NAAT). Retest patients 3 months after treatment for chlamydia infections.
3. Test-of-cure follow-up (preferably by NAAT) 3-4 weeks after completion of therapy is recommended in pregnancy.
4. For patients with cephalosporin allergy, anaphylaxis-type (IgE-mediated) penicillin allergy or other contraindication, CDC recommends considering desensitization. Judicious use of azithromycin is a practical option if spectinomycin is not available or not indicated.
5. Not recommended for pharyngeal gonococcal infection. Cefixime tablets have not been available in the US since November 2002. An oral suspension formulation is available.
6. Spectinomycin has not been manufactured since January 2006 and future availability is uncertain.
7. Use only if medical contraindications to a cephalosporin and when Spectinomycin is not available or not indicated. Test-of-cure is prudent because efficacy data are limited and because of mounting concern about emergent resistance.
8. Testing for gonorrhea and Chlamydia is recommended because a specific diagnosis may improve compliance and partner management.
9. Evaluate for bacterial vaginosis (BV). If BV is present or cannot be ruled-out, also use metronidazole, 500 mg po bid x 14 d.
10. Discontinue 24 hours after patient improves clinically and continue with oral therapy for a total course of 14 days.
11. Some specialists recommend 2.4 million units of benzathine penicillin G week for 1 to 3 weeks after completion of initial treatment.
12. Might weaken latex condoms and diaphragms because oil-based; intravaginal clindamycin cream should only be used during the first-half of pregnancy.
13. If gonorrhea is documented, change to a gonorrhea treatment regimen that does not include fluoroquinolone. If symptoms persist/recur, obtain a culture to ensure patient does not have resistant-strain gonorrhea infection.
14. The goal of suppressive therapy is to reduce recurrent symptomatic episodes and/or to reduce sexual transmission.
15. Contraindicated during pregnancy.
16. Cervical warts should be managed by a specialist.
17. Documented infection with treatment failure should rule-out re-infection and be evaluated for metronidazole-resistant *T. vaginalis*. Refer to the 2006 CDC treatment guideline, Trichomonas follow-up page 53 for other treatment options. For laboratory and clinical consultation, contact CDC at (404) 639-8371.
18. Safety in pregnancy has not been established; pregnancy, Category C.